

# PROGRESS IN FEDERAL-AID HIGHWAY CONSTRUCTION

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Progress in highway construction during the past year has been relatively good and the outlook for the future is more favorable. Many of the difficulties that hampered and delayed construction in the first postwar years have ceased to be adverse controls.

Shortages of materials, rising prices, scarcity of technical and supervisory men, are no longer the delaying factors that they were in 1946 and 1947. The highway construction price index used as reference by the Bureau of Public Roads declined in each quarter of 1949, dropping 12.1 points during the year. Prices of highway construction materials and wage rates remained practically level throughout the year. Technical assistance became more plentiful and plans for large projects were completed in much greater quantity than in preceding years.

Using past performance as a yardstick, highway construction is progressing at close to a record rate. Considering dollar volume only, it is going forward at a record rate. The dollar investment in Federal-aid construction completed in 1949 was the highest in its 34-year history. The construction put in place on active or completed projects cost 837.5 million dollars, of which 425.5 million dollars was paid with Federal funds. Projects

completed and opened to traffic during the year included 19,851 miles of primary, secondary, and urban highways, 3,140 bridges, and 645 railway-highway grade crossings eliminated or protected or separation structures reconstructed.

At the end of the year the active Federal-aid program was the largest in history. Projects had been approved for construction or were under way to cost over one billion dollars and involving over one-half billion dollars in Federal funds. The 4,400 projects aggregated nearly 14,000 miles in length and included 2,900 structures.

In your States construction must be very largely suspended during the winter months, but it may interest you to know that construction was begun on 1,650 miles of Federal-aid projects in November and on 870 miles in December.

The North Atlantic States have been apportioned about 21 per cent of the postwar Federal-aid funds, and progress in those States has been close to the national average. Of completed construction costing 1.8 billion dollars, 313 million dollars has been expended in your States. In the entire country 56,700 miles of highway have been completed. The figure for the North Atlantic States is 1,900 miles. The greater density of traffic and the higher types of improvement required in this area produce less mileage than might be expected from the expenditure as a national average.

At the end of the year the North Atlantic States had 652 miles of highway and 313 structures under construction or approved for construction.

The total cost was estimated at 292 million dollars, of which 143.5 million dollars was to be paid with Federal funds.

Improvements programmed but not yet approved for construction include 605 miles of highway, to cost 170.5 million dollars, and involving 87 million dollars in Federal aid. Funds apportioned to these States and not yet programmed amount to 120 million dollars.

In total highway contracts awarded, both with and without Federal aid, the State highway departments of this Association have shown a marked increase in each postwar year, and have progressed at a rate better than the national average when comparison is based on percentages of motor vehicles and factors controlling apportionment of Federal aid. The figures are as follows:

Cost of Highway Work Awarded to Contract by State Highway Departments

<u>Year</u>	<u>North Atlantic States</u>	<u>United States</u>	<u>Percentage of total in North Atlantic States</u>
1946	\$ 169,487,000	\$ 747,772,000	22.7
1947	208,933,000	904,851,000	23.1
1948	367,182,000	1,165,379,000	31.5
1949	435,437,000	1,186,753,000	36.7
Jan. 1950	25,495,000	58,869,000	43.3
TOTAL	<u>\$1,206,534,000<sup>1/</sup></u>	<u>\$4,063,624,000<sup>1/</sup></u>	<u>29.7</u>

<sup>1/</sup> Includes \$151,585,000 for toll facilities.

We can all take pride in what has been accomplished, but if we content ourselves with only exceeding past records we shall not be performing our duty to the public. Fast performance is no indication of the rate at which highway improvement is needed now. We did not successfully carry

through the recent war by only slightly exceeding the effort in World War I. Our military leaders estimated what it would take to defeat the enemy and the country provided it. A similar method of attack is the only hope of overcoming traffic congestion, delays and a high accident rate, and of avoiding the great cost arising from them.

The present demand for highway service is on a scale not approached at any time in previous experience. That businesses and people use the highways in such great numbers, fight their way through congestion and are not deterred by obsolete conditions as to width, grade and curvature, is strong evidence of the necessity of the travel.

There are now close to 44 million motor vehicles in the United States as compared with 32 million in 1940, an increase of close to 37 per cent. The additional vehicles since 1940 demanding space to travel are somewhat more than the total number in use in 1921. In our cities, where about half of the travel takes place, there is not the space for them, and the great volume of travel on rural roads justifies better facilities than are available. Actually, the new motor vehicles produced during the year, if parked bumper to bumper, would stretch out 20,000 miles and occupy almost the entire new mileage of Federal aid completed during the calendar year.

Highway problems are as urgent - perhaps even more so - in the North Atlantic States, as anywhere in the country. Eleven million vehicles, or one-fourth of the total, are concentrated in this area. You have to provide for 2.3 million more vehicles than in 1940, or an increase of 27 per cent.

It is estimated that motor vehicles traveled 216 billion vehicle miles on the rural roads of the United States last year. Forty-four billion vehicle miles were on the rural roads of your States.

In 1948 the respective figures were 198 billion and 37 billion. In that year travel of all vehicles on rural roads in your States was 130 per cent of that in 1936, but travel of trucks was 160 per cent, and the ton-mileage of carried load was 210 per cent of that year.

The extent to which we are failing to meet the needs of highway traffic in this area, and the great savings in the over-all costs of highway transport possible through increased highway expenditures, are not known to anyone better than to the members of the State highway departments of this area.

Our positive advance in the providing of highway facilities is not equal to the sum of those factors opposed to a satisfactory meeting of the problem. The increased numbers of vehicles, the increased use of each vehicle, the increased tonnage, increased cost levels and increased maintenance cost, leave a large deficit. The technological advance in construction, and particularly in more productive equipment, and to a greater or less extent, the lack of competition with other construction, had brought 1940 highway costs to the lowest level since 1920, except for the single depression year of 1932, measuring the price index for each year on the 1940 base. The enforced holiday for highway construction during the war and the aftermath characterized by the factors just mentioned, have created conditions

which the public should better understand. Notwithstanding increased expenditures dollarwise, measured by the producing value of the 1940 dollar, we were securing more advance in new highways with the State-Federal expenditures in 1936 than in any of the 12-year intervening period until 1949, when we approximately equalled 1936 in the value of new facilities.

A recapitulation of the records of this new program, or rather several programs, of State-Federal cooperative highway developments, reflects with mathematical precision that the time element has been inevitably introduced, - time that is required to bring into agreed action not only as previously the State highway departments, but now the officials of both the rural communities and those of the urban centers. In the going programs, this agreement upon a common objective has extended to a very large number of all the existing agencies having jurisdiction over public roads.

These reflections naturally lead to a re-examination of the routine established for bringing the cooperative funds to the actual providing of those facilities sorely needed. In the prior period when the objective was the improvement of the primary Federal-aid road system, we used the submission of the individual project statements without too serious delay as the initial step. When the new programs were authorized by the 1944 Act, the single project statement was replaced by the program of multi number of projects in the three categories. The experience of four years

leads to a recognition of the fact that now, with the need to initiate three programs, each with its own characteristics, differing materially from either of the others, the time has come to proceed on a different basis.

The experience of these postwar years clearly indicates that there are two definite phases involved in the efficient administration of the joint State-Federal funds, including such contributions or cost assumptions made by or required of the local communities.

These phases are, first, the engineering surveys, plans, cost estimates and rights of way, and second, the construction of the projects after the plans and estimates have been closely determined by the first phase. The study of the records of the elapsed time between the allotment to the States of the Federal funds and the submission of programs, indicates that the engineering organization of the departments is delayed unduly by the necessity to make decisions that take time and that might well be in the making while the same time is profitably utilized in doing the engineering and acquiring the rights of way.

Such a course would only recognize the existing fact that the first phase and the second, as here described, are separated by about a year's time.

It is now abundantly clear that the 1944 Act did not simply expand the going Federal-aid primary road program which had been in operation 28 years since the initial highway legislation. Rather the 1944 Act established two new programs of great importance. The secondary rural and

the urban arterial road programs as definite undertakings involved not only largely new areas of administration for most of the State highway departments; they quickly presented a wide variety of economic and political problems. As used here, political does not have any relation to the implication of partisan politics, but rather the inescapable consideration of the State-wide equities which must be a guiding principle of good administration by any State or Federal agency. The equities involved are interests, State-wide, which may vary between sections because of the non-uniformity of development and population placement even within the boundaries of a single State. So each community has its claims for fair treatment. There are wide disparities in the highway needs magnitudes between the different sections of each State. Time is needed for consideration of these. For the securing of rights of way and relocation of persons thus displaced in urban areas, time is needed. Because of these and many other administrative problems, the maturing of the first phase will always require much time. It is not good administration to tie up construction funds that might be providing new facilities during this period. Once the first phase is completed, relatively rapid progress can be made in placing the projects under contract. This fact is also indicated by the records.

For these and other reasons we are now undertaking to develop a modified form of procedure which we hope will be of service to the States, and which we believe will make better use of the funds in securing urgently needed facilities. This new procedure will be based on the two-phase



programming as here described, and will be optional as to its use by each State. Where adopted, this procedure should have the effect of providing the plans during one year for the construction program to follow the second year. It eventually should provide a backlog of plans available for stepping up employment if needed, and we believe will do away with many of the petty irritations which are the outgrowth of pressures to get work done. From all the indications the present year will be the most productive of the postwar years, and it is our wish in Public Roads to work with the State highway departments to this end.